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EXAMINER	
TRAN, HAI V	

ART UNIT	PAPER NUMBER
2623	

DATE MAILED: 10/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/852,229	CRISTOFALO ET AL.	
	Examiner	Art Unit	
	Hai Tran	2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 July 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-80* is/are pending in the application.

4a) Of the above claim(s) *6-8,12,40,41,44,45,75 and 76* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5,9-11,13-39,42,43,46-74 and 77-80* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 07/19/2006 has been entered.

Response to Arguments

Applicant's arguments with respect to claims 1-7, 9-75 and 77-80 have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

Claim1 is objected to because of the following informalities:

In claim 1, Line 12 and 14, limitation "the plurality of programming segments" should be changed to -- the plurality of component programming segments --. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claims 1-5, 9-11, 13-39, 42-43, 46-74 and 77-80 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boucher et al. (WO 00/51310) in view of Chaddha (US 6253241).

Claim 1, Boucher discloses a method of increasing a quantity of differentiable programming content (presentations, i.e., a composite data object; page 10, lines 8-10; page 12, lines 12-18; page 21, lines 7-18) available in a digital programming transmission stream (page 7, lines 24-page 8, lines 16) comprising:

Creating a plurality of digital programming components (data objects, Scripts, multimedia elements; page 26, lines 4-33; page 43, lines 1-7), the plurality of digital programming components utilizing a bandwidth of the digital programming transmission stream less than or equal to a bandwidth normally allocated for a standard digital programming segment, wherein the standard digital programming segment is a unit of differentiable programming content (page 40, lines 20-page 42);

Defining a plurality of subsets of the plurality of digital programming components to comprise a plurality of component programming segments wherein each component programming segment is also a unit of differentiable programming content (reads on grouping into or defining subgroups, i.e. geographic location, affinity groups or profession, from among data objects, Scripts, multimedia elements

page 29, lines 26-page 30, lines 15; page 36, lines 30-page 37, lines 7; page 38, lines 2-3; page 43, lines 1-page 44, lines 15; page 53, lines 30-page 54, lines 20; page 59, lines 10-page 60, lines 32; and page 68, lines 17-32);

Boucher does not clearly disclose "Inserting the plurality of (component) programming segments into the digital programming transmission stream, wherein the plurality of (component) programming segments replace the standard digital programming segment in the digital programming transmission stream; wherein without increasing the bandwidth normally allocated for a standard digital programming segment, the quantity of differentiable programming content available in the digital programming transmission stream is increased".

Chaddha, in a similar art, discloses "Inserting the plurality of (component) programming segments into the digital programming transmission stream, wherein the plurality of (component) programming segments replace the standard digital programming segment in the digital programming transmission stream; wherein without increasing the bandwidth normally allocated for a standard digital programming segment, the quantity of differentiable programming content available in the digital programming transmission stream is increased" (Col. 7, lines 1-38). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Boucher with the teaching of Chaddha so to provide a cost effective scalable multimedia content targeted at specific end users (Col. 1, lines 55-63).

Claim 2, as analyzed with respect to claim 1, in which "Synchronizing a plurality of digital programming components, the plurality of digital programming components utilizing a bandwidth of the digital programming transmission stream less than or equal to a bandwidth normally allocated for a standard digital programming segment, wherein the standard digital programming segment is a unit of differentiable programming content" reads on various method of encoding (MPEG page 50, lines 32-page 52, lines 25; page 60, lines 19-20).) of data types (video, audio, graphics data, etc..) that synchronize (Boucher; page 23, lines 20-25; page 43, lines 15-20).

Claim 3, as analyzed with respect to claims 1 and 2, Boucher in view of Chaddha further discloses a method of receiving an increased quantity of differentiable programming content in a programming transmission system, the differentiable programming content received by at least one user via a digital programming transmission stream (page 69, lines 22-page 70, lines 17), in which limitation "Receiving a plurality of synchronized digital programming components in the digital programming transmission system, the plurality of digital programming components utilizing a bandwidth of the digital programming transmission stream less than or equal to a bandwidth normally allocated for a standard digital programming segment, wherein the standard digital programming segment is a unit of differentiable programming content" reads on Boucher, page 23, lines 20-25; page

43, lines 15-20; page 67, lines 6-31; page 68, lines 9-15); and limitation "Selecting for presentation a plurality of subsets of the plurality of digital programming components, wherein each subset comprises at least one component programming segment, and the plurality of subsets of the digital programming components replace the standard digital programming segment in the digital programming transmission stream, wherein each component programming segment is also a unit of differentiable programming content; wherein, without increasing the bandwidth normally allocated for a standard digital programming segment, the quantity of differentiable programming content received in the digital programming transmission stream is increased " reads on Chaddha; Col. 7, lines 1-38.

Claim 4, Boucher in view of Chaddha discloses a method for creating differentiable programming content, wherein a quantity of differentiable programming content available for transmission in a digital programming transmission stream is increased is analyzed with respect to claims 1 and 2.

Claim 5, Boucher (data objects, Scripts, multimedia elements; page 26, lines 4-33; page 43, lines 1-7) in view of Chaddha further discloses inserting the plurality of digital programming components, into the digital programming transmission stream (Boucher, page 35, lines 5-3; page 62, lines 15-30 and Chaddha, Col. 7, lines 6-25).

Claim 9, Boucher (data objects, Scripts, multimedia elements; page 26, lines 4-33; page 43, lines 1-7) in view of Chaddha (Col. 7, lines 6-25) further discloses wherein the plurality of digital programming components is inserted into the digital programming transmission stream in addition to the standard digital programming segment .

Claim 10, Boucher (page 40, lines 20-page 42, lines 21; page 51, lines 22-Col. 52, lines 20) in view of Chaddha (Col. 7, lines 6-25) further discloses wherein the standard digital programming segment is reduced in quality and therefore utilizes less than the bandwidth normally allocated for a standard digital programming segment.

Claim 11, Boucher (page 40, lines 20-page 42, lines 21; page 51, lines 22-Col. 52, lines 20) in view of Chaddha (Col. 7, lines 6-25) further discloses wherein the standard digital programming segment is reduced in quality and therefore utilizes less than the bandwidth normally allocated for a standard digital programming segment.

Claim 13, Boucher (data objects, Scripts, multimedia elements; page 26, lines 4-33; page 43, lines 1-7) in view of Chaddha (Col. 7, lines 6-25) further disclose wherein the plurality of digital programming components is received in the digital

programming transmission stream in addition to the standard digital programming segment.

Claim 14, Boucher (page 40, lines 20-page 42, lines 21; page 51, lines 22-Col. 52, lines 20) in view of Chaddha (Col. 7, lines 6-25) further discloses wherein the standard digital programming segment is reduced in quality and therefore utilizes less than the bandwidth normally allocated for a standard digital programming segment.

Claim 15, Boucher (page 26, lines 4-8) in view of Chaddha further discloses wherein the plurality of digital programming components is selected from the group consisting of: video, still-frame video, audio, graphics, text, animation, and media objects.

Claim 16, Boucher (page 15, lines 18- page 17, lines 33; page 41, lines 17-24; page 61, lines 13-17) in view of Chaddha further discloses wherein the still-frame video comprises scalable video frames.

Claim 17, Boucher (page 44, lines 1-7) in view of Chaddha further discloses wherein the audio comprises less than CD-quality audio.

Claim 18, Boucher (page 41, lines 17-24) in view of Chaddha further discloses comprising digitally compressing the plurality of digital programming components.

Claim 19, Boucher (page 67, lines 28-31) in view of Chaddha further discloses comprising digitally decompressing the plurality of digital programming components.

Claim 20, Boucher (page 31, lines 11-page 32, lines 15) in view of Chaddha further discloses wherein the digital programming transmission stream is carried over a transmission medium selected from the group consisting of: terrestrial television broadcast, cable, satellite, microwave, radio, telephony, wireless telephony, digital subscriber line, fiber optic, a personal communications network, and a communication network.

Claim 21, Boucher (page 31, lines 11-page 32, lines 15) in view of Chaddha further discloses wherein the digital programming transmission stream is transmitted over a transmission medium selected from the group consisting of: terrestrial television broadcast, cable, satellite, microwave, radio, telephony, wireless telephony, digital subscriber line, fiber optic, a personal communications network, and a communication network.

Claim 22, Boucher (page 31, lines 11-page 32, lines 15) in view of Chaddha further discloses wherein the digital programming transmission stream is received over a transmission medium selected from the group consisting of; terrestrial television broadcast, cable, satellite, microwave, radio, telephony, wireless telephony, digital subscriber line, fiber optic, a personal communications network, and a communication network.

Claim 23, Boucher (page 31, lines 11-page 32, lines 15) in view of Chaddha further discloses wherein the communication network is selected from the group consisting of: the Internet, an intranet, a local area network, a wide area network, a public network, and a private network.

Claim 24, Boucher (page 68, lines 29-32) in view of Chaddha (Col. 7, lines 30-39) further discloses wherein the differentiable programming content comprises advertising programming content.

Claim 25, Boucher (page 21, lines 13-33) in view of Chaddha (Col. 6, lines 60-Col. 7, lines 6) further discloses wherein the differentiable programming content comprises programming content selected from the group consisting of: news, sports, entertainment, situation comedy, music video, game show, movie, drama, educational programming, interactive video gaming, and live programming.

Claim 26, Boucher (page 23, lines 20-25; page 43, lines 15-20; page 60, lines 19-20) in view of Chaddha (Col. 4, lines 51-Col. 5, lines 20) further discloses comprising synchronizing the plurality of digital programming components.

Claim 27, Boucher (page 21, lines 12-18; page 59, lines 10-33; page 68, lines 23-32) in view of Chaddha (Col. 7, lines 6-40) further discloses comprising targeting the at least one component programming segment toward at least one of a plurality of users receiving the digital programming transmission stream.

Claim 28, Boucher (page 21, lines 12-18; page 59, lines 10-33; page 68, lines 23-32) in view of Chaddha (Col. 7, lines 6-40) further discloses comprising targeting the at least one component programming segment toward at least one of the plurality of users to provide particular differentiable programming content to the at least one of the plurality of users.

Claim 29, Boucher (page 21, lines 12-18; page 59, lines 10-33; page 68, lines 23-32) in view of Chaddha (Col. 7, lines 6-40) further discloses wherein the at least one component programming segment is targeted toward the at least one of the plurality of users based upon user profile information of the at least one of the plurality of users accessible by the programming transmission system.

Claim 30, Boucher (page 21, lines 12-18; page 59, lines 10-33; page 68, lines 23-32) in view of Chaddha (Col. 7, lines 6-40) further discloses comprising determining whether the at least one component programming segment is targeted toward the at least one user to provide particular differentiable programming content to the at least one user, and wherein the step of selecting is based upon a determination that the at least one component programming segment is targeted toward the at least one user.

Claim 31, Boucher (page 21, lines 12-18; page 59, lines 10-33; page 68, lines 23-32) in view of Chaddha (Col. 7, lines 6-40) further discloses comprising accessing user profile information of the at least one user to determine whether the at least one component programming segment is targeted toward the at least one user based upon the user profile information of the at least one user.

Claim 32, Boucher (page 23, lines 28-32; page 25, lines 31-page 26, lines 8; page 54, lines 25-33; page 56, lines 29-33; page 58, lines 28-30) in view of Chaddha (Col. 7, lines 6-40) further discloses comprising outputting the at least one component programming segment to a presentation device for presentation to the at least one user

Claim 33, Boucher (page 23, lines 28-32; page 25, lines 31-page 26, lines 8; page 54, lines 25-33; page 56, lines 29-33; page 58, lines 28-30) in view of Chaddha

(Col. 7, lines 6-40) further discloses comprising switching from a first of the at least one component programming segment to a second of the at least one component programming segment.

Claim 34, Boucher (page 23, lines 28-32; page 25, lines 31-page 26, lines 8; page 54, lines 25-33; page 56, lines 29-33; page 58, lines 28-30) in view of Chaddha (Col. 7, lines 6-40) further discloses comprising outputting the first and second of the at least one component programming segment in sequence to a presentation device for presentation to the at least one user, and wherein the step of switching is seamless, whereby the switch is performed without a delay perceptible by the at least one user between presentation of the first of the at least one component programming segment and presentation of the second of the at least one component programming segment on the presentation device.

Claim 35, Boucher (page 21, lines 25,29, 33; page 32, lines 20-22) in view of Chaddha (see Fig. 2) further discloses wherein the presentation device comprises a device selected from the group consisting of: television, radio, video tape player, audio tape player, digital video disk player, compact digital disk player, minidisk player, digital file player, video game player, computer, personal digital assistant device, telephone, wireless telephone, and a telephony device for the deaf.

Claims 36 and 38 are analyzed with respect to method claims 1, 2 and 4 in which the combination of Boucher (Fig. 1, el. 135A..X, Fig. 2, and Fig. 3; el. 360A..X) in view of Chaddha (Fig. 1) would yield to a system comprising various components as claimed, for example an encoder, a transmitter, so to perform the function as claimed.

Claims 37 and 39, Boucher in view of Chaddha discloses a system for receiving an increased quantity of differentiable programming content in a programming transmission system, the differentiable programming content received by at least one user via a digital programming transmission stream is analyzed with respect to method claim 3. The system further inherently comprises a tuner, a decoder and processor so to perform as disclosed.

Claims 42 and 43 are analyzed with respect to claim 9.

Claims 46 and 47 are analyzed with respect to claim 13.

Claim 48, a system as described in claim 42, claim 43, claim 46, or claim 47 is analyzed with respect to claim 10.

Claim 49, a system as described in claim 36, claim 37, claim 38, or claim 39 is analyzed with respect to claim 15.

Claim 50 is analyzed with respect to claim 16.

claim 51 is analyzed with respect to claim 17.

Claim 52, Boucher further discloses a system as described in claim 36 further comprising a digital compressor (see Fig. 3, 373. 383) that compresses the plurality of digital programming components before they reach the multiplexer (360A-X and 365).

Claim 53, Boucher further discloses a system as described in claim 38 further comprising a means (see Fig. 3, 373. 383) for digital compressing the plurality of digital programming components before they reach the combining means (360A-X and 365).

Claims 54 and 55 limitations "further comprising a digital decompressor that decompresses the plurality of digital programming components, and wherein the processor further coordinates and directs the function of the decompressor" and "further comprising means for digitally decompressing the plurality of digital programming components, and wherein the processing means further coordinates and directs the function of the decompressing means" are inherently met by Boucher receiving system so to perform as disclose.

Claim 56, Boucher further discloses a system as described in claim 36 further comprising a synchronization component that synchronizes the plurality of digital programming components before they reach the multiplexer (page 23, lines 20-25; page 43, lines 15-20).

Claim 57, Boucher (page 23, lines 20-25; page 43, lines 15-20; page 60, lines 19-20) in view of Chaddha (Col. 4, lines 51-Col. 5, lines 20) further discloses a system as described in claim 38 further comprising a means for synchronizing the plurality of digital programming components before they reach the combining means.

Claim 58, Boucher further discloses a system as described in claim 36 further comprising a modulator that modulates the multiplexed digital programming components before they reach the transmitter (see Fig. 2; el. 250A..X).

Claim 59, Boucher further discloses a system as described in claim 38 further comprising a means for modulating the combined digital programming components before they reach the transmitting means Fig. 2; el. 250A..X).

Claim 60, Boucher further discloses a system as described in claim 36 further comprising a memory for storing the plurality of digital programming components before they reach the multiplexer (see Fig. 3, el. 301).

Claim 61, Boucher further discloses a system as described in claim 38 further comprising a means for storing the plurality of digital programming components before they reach the combining means (see Fig. 3, el. 301).

Claim 62, Boucher further discloses a system as described in claim 36 further comprising a memory that stores user profile information of the at least one of the plurality of users (Fig. 3, el. 394), "wherein the processor further coordinates and directs the function of the memory, and wherein the at least one component programming segment is targeted to the at least one of the plurality of users based upon the user profile information of the at least one of the plurality of users, to provide particular differentiable programming content to the at least one of the plurality of users" is further met by Boucher (page 21, lines 12-18; page 59, lines 10-33; page 68, lines 23-32) in view of Chaddha (Col. 7, lines 6-40), as analyzed with respect to the above claim 28.

Claim 63, "wherein the at least one component programming segment is targeted toward the at least one user to provide particular differentiable programming content to the at least one user, and wherein the signal selector further selects the at least one component programming segment based upon information in the at least one subset of the plurality of digital programming components that the at least one component programming segment is targeted to the at least one user." is further met

by Boucher (page 21, lines 12-18; page 59, lines 10-33; page 68, lines 23-32) in view of Chaddha (Col. 7, lines 6-40), as analyzed with respect to the above claim 30.

Claim 64, "further comprising a memory for storing user profile information of the at least one user, wherein the signal selector further selects the at least one component programming segment that is targeted to the at least one user based upon the user profile information of the at least one user." is further met by Boucher (page 21, lines 12-18; page 59, lines 10-33; page 68, lines 23-32) in view of Chaddha (Col. 7, lines 6-40), as analyzed with respect to the above claim 31.

Claim 65 is further met by Boucher in view of Chaddha with respect to the above analysis of claim 20.

Claim 66 is further met by Boucher in view of Chaddha with respect to the above analysis of claim 22.

Claim 67 is further met by Boucher in view of Chaddha with respect to the above analysis of claim 20.

Claim 68 is further met by Boucher in view of Chaddha with respect to the above analysis of claim 22.

Claim 69 is further met by Boucher in view of Chaddha with respect to the above analysis of claim 22.

Claim 70 is further met by Boucher in view of Chaddha with respect to the above analysis of claim 24.

Claim 71 is further met by Boucher in view of Chaddha with respect to the above analysis of claim 25.

Claim 72 is further met by Boucher in view of Chaddha with respect to the above analysis of claim 33.

Claim 73 is further met by Boucher in view of Chaddha with respect to the above analysis of claim 34.

Claim 74 is further met by Boucher in view of Chaddha with respect to the above analysis of claim 35.

Claim 77, A method of receiving an increased quantity of differentiable advertising segments in a programming transmission system, the differentiable advertising segments received by at least one user via a digital programming transmission stream is further met by Boucher in view of Chaddha with respect to the above analysis of claim 3.

Claim 78 is further met by Boucher in view of Chaddha with respect to the above analysis of claim 15.

Claim 79, Boucher (page 45, lines 8-15) in view of Chaddha further discloses wherein the step of receiving further comprises receiving the at least one command code in the digital programming transmission stream.

Claim 80, Boucher (page 45, lines 8-15) in view of Chaddha further discloses comprising receiving the at least one command code from a user via a user interface.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai Tran whose telephone number is (571) 272-7305. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher S. Kelley can be reached on (571) 272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

HT:ht
09/29/2006

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PRIMARY EXAMINER